



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/826,402

04/19/2004

Hung-Hsiang Yeh

TSAI 138

9927

7590 01/25/2008  
RABIN & BERDO, P.C.  
1101 14 Street, N.W., Suite 500  
Washington, DC 20005

EXAMINER
----------

SAUNDERS JR, JOSEPH

ART UNIT	PAPER NUMBER
----------	--------------

2615

MAIL DATE	DELIVERY MODE
-----------	---------------

01/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/826,402

Applicant(s)

YEH, HUNG-HSIANG

Examiner

Joseph Saunders

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to the communications filed October 25, 2007.

Claims 1 – 20 are currently pending and considered below.

#### *Specification*

2. The substitute specification filed October 25, 2007 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: Improper use of underline, brackets, and strikethrough. Therefore, the objection to the specification is maintained.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hung et al. (US 2005/0015260 A1), hereinafter Hung, in view of Tse Chun Hin (US 2005/0047071 A1), hereinafter Tse Chun Hin.

**Claim 1:** Hung discloses a compressed digital music adapting apparatus for vehicles (MP3 application device 200, Figure 2), the apparatus comprising: a main body of an adaptor having a USB port (USB host circuit 112) and a cigarette-lighter charger port (DC power supply connection for receiving the DC power (12V) from a cigar lighter);

and an FM modulator/transmitter for modulating and transmitting (frequency modulation transmitter 270) compressed digital music (MP3). Hung also discloses "a voltage transformer for supplying power to various circuit within the MP3," Paragraph 19, but does not disclose the specifics as to the connections and therefore does not disclose the voltage transformer or power regulator inside the main body of the adaptor and selectively electrically coupled to the USB port or the cigarette-lighter charger port for regulating a voltage from the USB port or the cigarette-lighter charger port to a suitable level for supplying to the FM modulator/transmitter.

Tse Chun Hin discloses a similar apparatus for transmitting music within a vehicle. Tse Chun Hin further disclose that "a suitable transformer can be incorporated in the cradle, typically to provide a 5V supply for the player 10 and the radio frequency transmitter," Paragraph 28. Tse Chun Hin illustrates in Figure 4 that the voltage transformer 33 is coupled to the car cigarette lighter 32 to supply the FM stereo transmitter 35 the suitable level of 5V.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to couple the components as disclosed by Hung, in a manner as disclosed by Tse Chun Hin, thereby enabling suitable power to be supplied to the FM transmitter.

**Claim 6:** Hung and Tse Chun Hin disclose the apparatus of claim 1, wherein the cigarette-lighter charger port and the USB port are located opposite each other on the main body of the adaptor (Tse Chun Hin Figures 1 and 2).

**Claim 8:** Hung and Tse Chun Hin disclose the apparatus of claim 1, wherein the cigarette-lighter charger port and the USB port are located on a same side of the main body of the adaptor (Hung Figure 2).

4. Claims 2 – 4, 7, and 14 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hung and Tse Chun Hin in view of Tak (KR 2002-0054686), hereinafter Tak, and Fouladpour (US 6,608,264 B1), hereinafter Fouladpour.

**Claim 2:** Hung and Tse Chun Hin disclose the apparatus of claim 1, and Hung further discloses the apparatus comprising: a digital music player (MP3 decoder 126, Figure 2). In an alternate embodiment Hung also discloses a similar device where the FM transmitter 270 is omitted in place of a loudspeaker 150 for broadcasting. Hung does not disclose incorporating the loudspeaker and the FM transmitter in the same device however Tak discloses a similar device that does incorporate both the option of broadcasting from an FM transmitting module or broadcasting to a speaker/earphone disposed in the terminal through the external output port 220 (Figure 2). Since Hung does not disclose a FM transmitter and a loudspeaker in the same embodiment like Tak, Hung and Tse Chun Hin therefore do not disclose an audio switch for selecting between and transmitting the compressed digital music to a first medium and a second medium. But given the teachings off Tak and the two embodiments taught by Hung it would have been obvious to one of ordinary skill in the art at the time of the invention to

incorporate both a FM transmitter and an loudspeaker with a switch selecting between the two different mediums in the system of Hung and Tse Chun Hin thereby enabling the user control over whether the outputted audio signal is sent to the loudspeaker or broadcast by the FM transmitter. Hung and Tse Chun Hin also do not disclose a power switch for switching between the USB port and the cigarette-lighter charger port.

Fouladpour discloses a situation where an audio file player 302 can connect to a computer through USB or an alternate power source through a car-lighter socket (Figure 3 and Column 4 Lines 2 – 3, 19 – 31, and Column 4 Line 54 – Column 5 Line 5).

Fouladpour goes on to describe how some audio players operate in modes, for instance an audio player runs off its own batteries and is in music playback mode when it does not receive power from a data cable (USB), and on the other hand the audio player is in a data storage and transfer mode when it receives power from a data cable (USB).

Therefore providing a switch enables the device to switch between modes without having to unplug cables and also enables the selection of a primary power source or an alternate power source without having to unplug cables. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include a switch in the system of Hung, Tse Chun Hin, and Tak as disclosed by Fouladpour since the power switch would enable the user of the system to avoid the need to plug and unplug cables avoiding wear and tear on the connectors of the power sources.

**Claim 3:** Hung, Tse Chun Hin, Tak, and Fouladpour disclose the apparatus of claim 2, and Hung further discloses wherein the first medium comprises at least a speaker or a

headphone (loudspeaker 150, Figure 1).

**Claim 4:** Hung, Tse Chun Hin, Tak, and Fouladpour disclose the apparatus of claim 2, and Hung further discloses wherein the second medium comprises at least a vehicular speaker (Car Audio-Stereo System 280, Figure 2).

**Claim 7:** Claim 7 is substantially similar in scope to claims 2 – 4 and therefore is rejected for the same reasons.

**Claim 14:** Claim 14 is substantially similar in scope to claim 2 and therefore is rejected for the same reasons.

**Claim 15:** Claim 15 is substantially similar in scope to claim 4 and therefore is rejected for the same reasons.

**Claim 16:** Claim 16 is substantially similar in scope to claim 3 and therefore is rejected for the same reasons.

**Claim 17:** Claim 17 is substantially similar in scope to claim 4 and therefore is rejected for the same reasons.

**Claim 18:** Claim 18 is substantially similar in scope to claims 6 and therefore is rejected for the same reasons.

**Claim 19:** Claim 19 is substantially similar in scope to claims 2 – 4 and therefore is rejected for the same reasons.

**Claim 20:** Claim 20 is substantially similar in scope to claims 8 and therefore is rejected for the same reasons.

5. Claims 5 and 9 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hung and Tse Chun Hin in view of Kang (KR 2003-0068119), hereinafter Kang.

**Claim 5:** Hung and Tse Chun Hin disclose the apparatus of claim 1, Hung and Tse Chun Hin *do not disclose* wherein the main body of the adaptor further comprises an audio-in jack, wherein the audio-in jack is used to connect to an audio-out plug of a digital music player. Kang discloses a similar device with a USB port for connection with a USB device and also an analog connection port 500 for connection with an analog connection terminal 510. The analog connection port 500 allows for other audio devices, i.e. cassette player, CD player, MD player, MP3 player, to connect to the device so that the analog audio signal output from the other audio devices can be selected to be modulated by an RF transmitter (Paragraph 46 and 47). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include an audio-



in jack as disclosed by Kang in the system of Hung and Tse Chun Hin since this would allow for other devices to interface with the system of Hung and Tse Chun Hin for FM transmission thereby making the system of Hung and Tse Chun Hin more versatile.

**Claim 9:** Hung discloses a compressed digital music adapting apparatus for vehicles (MP3 application device 200, Figure 2), the apparatus comprising: a main body of an adaptor having a USB port (USB host circuit 112) and a cigarette-lighter charger port (DC power supply connection for receiving the DC power (12V) from a cigar lighter); and an FM modulator/transmitter for modulating and transmitting (frequency modulation transmitter 270) compressed digital music (MP3). Hung also discloses "a voltage transformer for supplying power to various circuit within the MP3," Paragraph 19, but does not disclose the specifics as to the connections and therefore does not disclose the voltage transformer or power regulator inside the main body of the adaptor and selectively electrically coupled to the USB port or the cigarette-lighter charger port for regulating a voltage from the USB port or the cigarette-lighter charger port to a suitable level for supplying to the FM modulator/transmitter.

Tse Chun Hin discloses a similar apparatus for transmitting music within a vehicle. Tse Chun Hin further disclose that "a suitable transformer can be incorporated in the cradle, typically to provide a 5V supply for the player 10 and the radio frequency transmitter," Paragraph 28. Tse Chun Hin illustrates in Figure 4 that the voltage transformer 33 is coupled to the car cigarette lighter 32 to supply the FM stereo transmitter 35 the suitable level of 5V.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to couple the components as disclosed by Hung, in a manner as disclosed by Tse Chun Hin, thereby enabling suitable power to be supplied to the FM transmitter.

Hung and Tse Chun Hin *do not disclose* the system having an audio-in jack. Kang discloses a similar device with a USB port for connection with a USB device and also an analog connection port 500 for connection with an analog connection terminal 510. The analog connection port 500 allows for other audio devices, i.e. cassette player, CD player, MD player, MP3 player, to connect to the device so that the analog audio signal output from the other audio devices can be selected to be modulated by an RF transmitter (Paragraph 46 and 47). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include an audio-in jack as disclosed by Kang in the system of Hung and Tse Chun Hin since this would allow for other devices to interface with the system of Hung and Tse Chun Hin for FM transmission thereby making the system of Hung and Tse Chun Hin more versatile.

**Claim 10:** Hung, Tse Chun Hin, and Kang disclose the apparatus of claim 9, and Hung and Kang further discloses wherein the vehicle further comprises an FM receiver (FM receiver 282) for receiving the compressed digital music, and at least an amplifier for broadcasting the compressed digital music (Car Audio-Stereo System 280, Hung Figure 2).

**Claim 11:** Claim 11 is substantially similar in scope to claims 6 and therefore is rejected for the same reasons.

**Claim 13:** Claim 13 is substantially similar in scope to claims 8 and therefore is rejected for the same reasons.

6. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hung, Tse Chun Hin, and Kang in view of Tak and Fouladpour.

**Claim 12:** Claim 12 is substantially similar in scope to claims 2 – 4 and therefore is rejected for the same reasons.

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is (571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/826,402  
Art Unit: 2615

Page 12

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JS  
January 16, 2008



SINH TRAN  
SUPERVISORY PATENT EXAMINER